

# REPORT ON OIL ENGINE MACHINERY.

No. 8211

Received at London Office

Survey Report 10<sup>th</sup> Nov. 1938 When handed in at Local Office 10<sup>th</sup> Nov. 1938 Port of Hongkong  
Survey held at Hongkong Date, First Survey Feb. 3<sup>rd</sup> Last Survey Nov. 4<sup>th</sup> 1938  
Number of Visits 52

on the <sup>Single</sup> Twin <sup>Triple</sup> Screw vessel MATAFELE Tons { Gross 334.82  
          <sup>Quadruple</sup> BM Net 186.28

Hongkong By whom built The H. K. Whampoa Dock Co. Ltd. Yard No. 800 When built 1938  
made at - do - By whom made - do - Engine No. 519 When made 1938  
Boilers made at None By whom made ✓ Boiler No. (D-2 + D3) When made ✓  
Horse Power 400 (Total) Owners Burns Philp (South Sea) Ltd Port belonging to Hongkong  
Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted Yes  
which vessel is intended South Sea Islands.

GINES, &c. — Type of Engines Harland - B + W. type, Enclosed Trunk 2 or 4 stroke cycle 2 Single or double acting Single  
Pressure in cylinders 700 lbs. Diameter of cylinders 220 m/m Length of stroke 370 m/m No. of cylinders 4 Each No. of cranks 4 each  
Rings, adjacent to the Crank, measured from inner edge to inner edge 284 m/m Is there a bearing between each crank Yes  
Revolutions per minute 300 Flywheel dia. 2.49 ft Weight 1/2 Ton Means of ignition Compression Kind of fuel used Diesel oil  
Shaft dia. of journals as per Rule 180 m/m Crank pin dia. 180 m/m Crank Webs Mid. length breadth 260 m/m Thickness parallel to axis  
as fitted 180 m/m Crank Webs Mid. length thickness 90 m/m Thickness around eyehole  
Shaft, diameter as per Rule 4.04" Intermediate Shafts, diameter as per Rule 4.25" Thrust Shaft, diameter at collars as per Rule  
as fitted Crank Coupling as fitted 5" 5 3/16" Is the tube screw shaft fitted with a continuous liner No Liner  
Liners, thickness in way of bushes as per Rule Thickness between bushes as per rule Is the after end of the liner made watertight in the  
as fitted If the liner is in more than one length are the junctions made by fusion through the whole thickness of the liner  
does not fit tightly at the part between the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive  
Liners are fitted, is the shaft lapped or protected between the liners Is an approved Oil Gland or other appliance fitted at the after  
tube shaft Length of Bearing in Stern Bush next to and supporting propeller 2.4"  
Pitch 3'-10" No. of blades 4 Material Bronze whether Moveable Fixed Total Developed Surface 9 sq. feet

of reversing Engines Hand, direct Is a governor or other arrangement fitted to prevent racing of the engine when declutched Yes Means of lubrication  
Thickness of cylinder liners 18 m/m Are the cylinders fitted with safety valves Yes Are the exhaust pipes and silencers water cooled or lagged with  
Lagged If the exhaust is led overboard near the waterline, what means are arranged to prevent water from being syphoned back to the engine  
Water Pumps, No. Two Standby Is the sea suction provided with an efficient strainer which can be cleared within the vessel Yes  
Pumps worked from the Main Engines, No. Two Diameter 70 m/m Stroke 120 m/m Can one be overhauled while the other is at work Yes  
connected to the Main Bilge Line { No. and Size 2 @ 70 m/m x 120 m/m Rotary G. S. Pump, 20 Tons per hour  
How driven Main engines 10 BHP Ruston oil engine

Pumps, No. and size 1 - Rotary, 20 Tons per hour Lubricating Oil Pumps, including Spare Pump, No. and size 2 Rotary 4 Tons per hour  
Independent means arranged for circulating water through the Oil Cooler Yes Suctions, connected to both Main Bilge Pumps and Auxiliary Bilge  
No. and size: — In Machinery Spaces 1-2" in E. R. 1-2" in Cofferdam  
, &c. 1-2" in dry tank, 2-2" in bilge well + 2-2 1/4" in Hold  
Suction Power Pump Direct Suctions to the Engine Room Bilges, No. and size 2 - 2 1/4" dia. ✓

Are the Bilge Suction pipes in Holds and Tunnel Well fitted with strum-boxes Yes Are the Bilge Suctions in the Machinery Spaces  
easily accessible mud-boxes, placed above the level of the working floor, with straight tail pipes to the bilges Yes  
Sea Connections fitted direct on the skin of the ship Yes Are they fitted with Valves or Cocks Valves  
fixed sufficiently high on the ship's side to be seen without lifting the platform plates Yes Are the Overboard Discharges above or below the deep water line Above  
each fitted with a Discharge Valve always accessible on the plating of the vessel Yes Are the Blow Off Cocks fitted with a spigot and brass covering plate  
Pipes pass through the bunkers None How are they protected  
Pipes pass through the deep tanks None Have they been tested as per Rule

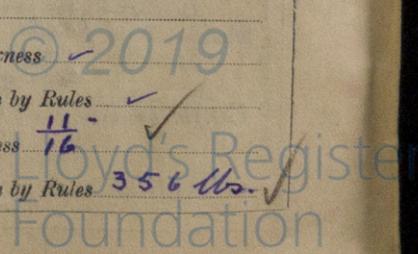
Pipes, Cocks, Valves, and Pumps in connection with the machinery and all boiler mountings accessible at all times Yes  
Arrangement of valves and their connections such as to prevent the possibility of water passing from the sea or from water tanks into the cargo or machinery spaces, or from one  
compartment to another Yes Is the Shaft Tunnel watertight No Tunnel Is it fitted with a watertight door worked from  
On a vessel, what means are provided to prevent leakage of either fuel oil or of lubricating oil from saturating the woodwork

Air Compressors, No. Two No. of stages Two Diameters 130 + 115 m/m Stroke 100 m/m Driven by Main Engines  
Auxiliary Air Compressors, No. one No. of stages Two Diameters 3 1/4" + 1 1/8" Stroke 3 1/4" Driven by hand from  
Ruston 10 H.P. oil engine  
Auxiliary Air Compressors, No. ✓ No. of stages Diameters Stroke Driven by Hand starting  
Lubricating Air Pumps, No. one on each engine Diameter Rotary Stroke Driven by Main Engines

Auxiliary Engines crank shafts, diameter as per Rule 3" dia.  
RECEIVERS: — Is each receiver, which can be isolated, fitted with a safety valve as per Rule Yes  
Can the internal surfaces of the receivers be examined Yes What means are provided for cleaning their inner surfaces Manhole  
Is there a drain arrangement fitted at the lowest part of each receiver Yes

High Pressure Air Receivers, No. None Cubic capacity of each Internal diameter thickness  
Unless, lap welded or riveted longitudinal joint Material Range of tensile strength Working pressure by Rules  
Working Air Receivers, No. one Total cubic capacity 50 cub. ft. Internal diameter 3'-3" thickness 1 1/2"  
Unless, lap welded or riveted longitudinal joint Riveted Material Steel Range of tensile strength 28/32 Tons Working pressure by Rules 356 lbs.

W252-0055



IS A DONKEY BOILER FITTED? No ✓

If so, is a report now forwarded? ✓

PLANS. Are approved plans forwarded herewith for Shafting Kobe, 2/3/38, 4/12/37 Receivers Kobe Dec. 1<sup>st</sup> 1937 Separate Tanks Kobe, 25<sup>th</sup> May  
(If not, state date of approval)

Donkey Boilers ✓ General Pumping Arrangements Kobe, 20/5/38 + 30/9/38 Oil Fuel Burning Arrangements Kobe, 25<sup>th</sup> May

SPARE GEAR As per attached list.

**THE HONGKONG & WHAMPOA DOCK Co., Ltd.**  
The foregoing is a correct description,

*EL Hosi*

Manufacturer.

CHIEF MANAGER

Dates of Survey while building  
During progress of work in shops -- 1938  
Feb. 3, Mar. 26, April 7, 14, 18, May 11, 24, 31, June 4, 11, 17, 23, 28, July 4,  
22, 29, Aug 3, 8, 15, 24, 26, 29, 30, 31, Sept 1, 5, 6, 7, 9, 13, 15, 17, 20, 22, 24, 26, 29, Oct,  
During erection on board vessel -- Oct. 21, 25, 27, 31, Nov. 1, 2, + 4  
(15, 18, + 19.)  
Total No. of visits 52

Dates of Examination of principal parts—Cylinders 30, 7, 8, 9, 17 Covers 30, 7, 8, 9, 17 Pistons 7, 17 Rods ✓ Connecting rods 7-9-  
Crank shaft 17, 6, 7, 1938 Flywheel shaft ✓ Thrust shaft 17, 6, 7, 1938 Intermediate shafts 4, 6, 7, 1938 Tube shaft ✓  
Screw shafts 4, 6, 7, 1938 Propeller 29/8/38 Stern tube 26-8-38 Engine seatings 8-8-38 Engines holding down bolts 25-11-  
Completion of fitting sea connections 13-8-38 Completion of pumping arrangements 31-10-38 Engines tried under working conditions 1-11-38

Crank shaft, Material } O.H. Steel Identification Mark LLOYDS N°518-519 T.S.M. 7-9-38 Flywheel shaft, Material ✓ Identification Mark ✓  
Thrust shaft, Material } Identification Mark 7-9-38 Intermediate shafts, Material O.H. Steel Identification Marks LLOYDS N°518- T.S.M. 7-9-38  
Tube shaft, Material ✓ Identification Mark ✓ Screw shaft, Material O.H. Steel Identification Mark 7-9-38

Is the flash point of the oil to be used over 150° F. Yes ✓  
Have the requirements of the Rules for oil fuel pipes and tank fittings been complied with Yes ✓  
Is the vessel (not being an oil tanker) fitted for carrying oil as cargo No ✓ If so, have the requirements of the Rules been complied with ✓  
Is this machinery duplicate of a previous case No ✓ If so, state name of vessel ✓

General Remarks (State quality of workmanship, opinions as to class, &c. These engines have been built under survey in accordance with the approved plans + the Rules of this Society, the materials + workmanship are good. They were tested under full load + 10% overload on the makers test bed all working parts were afterwards opened up + examined, together with the welded bed plate + found satisfactory.

The two combined "Ruston + Hornsby" auxiliary engines + auxiliary air compressor were opened up + examined throughout + found satisfactory.

Forging reports + Certificate for air receiver enclosed. Plan of piping + machinery arrangements enclosed. Makers Certificate for auxiliary engines enclosed, also for Standby Lub. oil pump.

This machinery has been installed in the vessel in accordance with the instructions + satisfactorily tried under working conditions and it is recommended the vessel be classed with Lloyd's Machinery certificate + the record L.M.C 11-38 be made in the Register Books.

Certificates (if required) to be sent to  
(The Surveyors are requested not to write on or below the space for Committee's Minute.)

The amount of Entry Fee ...	£6 2s 9d	When applied for,	4 <sup>th</sup> Nov. 1938
Special ...	£52-10s 8d	When received,	9. 12. 19. 38
Air Receiver ...	£4-4s 8d		
Donkey Boiler Fee ...	£8-8s 2d		
Welded Bed Plate	£1-5s 0d		
Travelling Expenses (if any)	£3-3s 5d		
Cablegrams			

Committee's Minute  
Assigned + LMC 11.38  
D.G. O'Brien

*J. J. Morrison*  
Engineer Surveyor to Lloyd's Register of Shipping

